NATURAL BRIDGES NATIONAL MONUMENT

Campground Trail Construction and Facilities Upgrade

ENVIRONMENTAL ASSESSMENT

U.S. Department of Interior National Park Service

April 2002

ENVIRONMENTAL ASSESSMENT CAMPGROUND TRAIL AND FACILITIES UPGRADE

Summary:

Natural Bridges National Monument is proposing the construction of a new trail from the campground to the visitor center, upgrading of the campground amphitheater and rehabilitation of the picnic area.

The visitor center is the only location in the park with public water and telephones. Campers who choose not to drive from the campground to the visitor center must walk along the park road, which has a posted speed limit of 25 mph and no shoulder. The proposed trail would eliminate this safety hazard.

The existing amphitheater facility is outdated and in deteriorated condition. Visitors sit on split-log benches with no back support and there is no lighting along the 200-yard path used by visitors to return to their campsites following evening programs. The projection screen is propped up with metal fence posts to keep it from falling down.

The existing picnic facility is used heavily by visitors. The site consists of three badly worn and warped tables without shade. There are also potential safety hazards created by the deteriorating steps and the access ramp that leads to the tables and garbage cans.

This EA has been prepared in accordance with the National Environmental Policy Act (NEPA) of 1969 and regulations of the Council on Environmental Quality (CEQ) (40 Code of Federal Regulations (CFR) 1508.0). It analyzes the proposed action and alternatives, and their likely impacts on the environment.

Less than 0.2 acres between the campground and visitor center would be disturbed for the trail project, with minor impacts to vegetation and soil. No cultural resources would be impacted by the proposed actions. The severity, duration and timing of impacts associated with this proposal, and their direct, indirect and cumulative effects do not constitute impairment of park resources and values.

Note to Reviewers and Respondents

If you wish to comment on the environmental assessment, you may mail comments to the name and address below. Our practice is to make comments, including names and home addresses of respondents, available for public review during regular business hours. Individual respondents may request that we withhold their home address from the record, which we will honor to the extent allowable by law. If you wish us to withhold your name and/or address, you must state this prominently at the beginning of your comment. We will make all submissions from organizations or businesses, and from individuals identifying themselves as representatives or officials of organizations or businesses, available for public inspection in their entirety.

Address comments to:

Superintendent Natural Bridges National Monument HC 60 Box 1 Lake Powell, Utah 84533

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1. PURPOSE AND NEED

1.1 Purpose

The National Park Service (NPS) is considering building a new trail from the campground to the visitor center, upgrading the campground amphitheater and rehabilitating the picnic area at Natural Bridges National Monument, Utah. The purpose of the overall project is 1) to reduce safety hazards for pedestrians walking between the campground and visitor center and 2) to upgrade uncomfortable, unsafe, and deteriorating equipment. The funding for these projects will come from Southeast Utah Group Fee Demonstration fund

An Environmental Assessment (EA) analyzes the proposed action and alternatives, and their impacts on the environment. This EA has been prepared in accordance with the National Environmental Policy Act (NEPA) of 1969 and regulations of the Council on Environmental Quality (CEQ) (40 Code of Federal Regulations (CFR) 1508.0).

1.2 Need

Trail between the campground and visitor center.

The visitor center is the only location at Natural Bridges National Monument with public water and telephones. Campers who choose not to drive from the campground to the visitor center must walk along the park road, which has a posted speed limit of 25 mph and no shoulder. Drivers are often reluctant to cross over the road centerline and consequently pass very close to those walking along the road edge. Additionally, since this section of road is not flat, drivers are often surprised by the presence of pedestrians as they come over the rise, leaving them limited time to react. The proposed trail would eliminate this safety hazard.

A second need for establishing this trail is to provide campers with a designated hiking route without driving to one of the trailheads or trampling the area adjacent to the campground. With no established trails, the area around the campground is becoming impacted. A designated trail would help reduce some of this impact.

Upgrade campground amphitheater.

The existing amphitheater facility is outdated, uncomfortable and unsafe. Visitors sit on split-log benches with no back support and there is no lighting along the 200-yard path used by visitors to return to their campsites following evening programs. The projection screen is propped up with metal fence posts to keep it from falling down. The screen has recurring maintenance needs for repair of warped boards that frame the screen area.

Rehabilitate picnic area.

The existing picnic facility is used heavily by visitors. Consisting of three picnic tables and a wheelchair accessible ramp, it is the only area maintained within the park where those without campsites may find seating for outdoor meals. The site now consists of three badly worn and warped tables without shade. There are also safety hazards created by the deterioration of steps and the access ramp that leads to the tables and garbage cans. Staff have received verbal and written visitor complaints concerning existing conditions and the inadequacy of the facility.

1.3 Background

1.3.1 Park Purposes and Significance

Natural Bridges National Monument is the oldest national park area in Utah. It was established on April 16, 1908, by Presidential Proclamation Number 804, 35 Statute 2183. This act states: "Whereas, a number of natural bridges situated in southeastern Utah, having heights more lofty and spans far greater than any heretofore known to exist, are of greatest scientific interest, and it appears that the public interests would be promoted by reserving these extraordinary examples of stream erosion with as much land as may be necessary for the proper protection thereof..."

Proclamation Number 881,36 Statute 25, 1909, enlarged the boundaries of the park, stating in part: "Whereas, at the time this monument was created nothing was known of the location and character of the prehistoric ruins in the vicinity of the bridges, nor of the location of the bridges and the prehistoric cave springs, also hereby reserved... I, William H. Taft, President of the United States of America... do hereby set aside as the Natural Bridges National Monument... about two thousand four hundred and twenty acres, and embracing said natural bridges and principal prehistoric ruins..."

Proclamation Number 3486, August 24, 1962, 76 Statute 1495, enlarged Natural Bridges again, stating in part: "Whereas it appears that it would be in the public interest to add to such monument approximately five thousand two hundred and thirty-six acres of land near the present boundaries which contain additional cliff-type prehistoric Indian ruins and suitable space for construction of a visitor center, administrative offices, employees residences, utility and maintenance facilities, and a new entrance road...."

The 1997 General Management Plan for Natural Bridges National Monument states that the purpose of Natural Bridges National Monument is to preserve, protect and provide for present and future generations the following:

- The three natural bridges and other natural resources in their natural setting; and
- Prehistoric Indian ruins and other cultural resources.
- Scenic and wilderness value; and
- Opportunities to experience, understand, and enjoy Natural Bridges National Monument.

(USDI National Park Service. 1997.)

1.3.2 Project Background and Scope

These projects are proposed in order to resolve the problems outlined in 1.2 under Need, and provide for future demands of increased visitation. This environmental assessment (EA) has been developed to assess the impacts of proposed actions and alternatives.



1.3.3 Description of Project Area

The Monument is located in San Juan County, Utah, 120 miles (200 kilometers) south of Moab, Utah. The area is accessible via Utah Highway 95, which connects Blanding, Utah with Hanksville, Utah. Blanding, Utah (population 3,100) is the nearest population center, located 40 miles (65 kilometers) east of the Monument (figure 1).

The elevation within the monument varies from approximately 6,000 feet in the canyons to 6,600 on the canyon(s) rims.

Trail between the campground and the visitor center

This trail will start approximately 10 yards east of the amphitheater and run approximately .3 mile toward the visitor center hooking up with the photovoltaic array overlook trail at the residents/maintenance area access road.

Amphitheater upgrade

The amphitheater trail is located in the Natural Bridges NM campground. The campground is located approximately .3 mile from the visitor center.

Picnic area rehabilitation

The picnic area at Natural Bridges NM is located approximately 2.1 miles along the Bridge View Road between Sipapu Bridge Overlook and trailhead

1.3.4 Relationship to Other Planning Documents

In 1997, the Natural Bridges National Monument General Management Plan suggested that ultimately, the picnic area on Bridge View Drive would be removed. The action was recommended at the time due to perceptions that "because of its location, the picnic area is seldom used; and due to drainage issues, it is a resource problem" (USDI National Park Service. 1997). Since then, NPS observations have concluded the area receives regular and appropriate use, and provides an alternative for enjoying outdoor meals for those unable to secure a campground site.

Plans have been developed to relocate the picnic tables at the site to alleviate concerns about possible drainage problems. The addition of shade structures to the three new replacement tables, combined with rehabilitated steps, and a hardened path with improved access for disabled visitors will result in increased use of the picnic area and a reduction in impacts to surrounding soil.

1.3.5 Public Scoping

On February 13, 2002, a summary of the projects was presented to the Monticello City Council. On March 13, 2002, a summary was presented to the Blanding City Council. A press release outlining the proposed projects and requesting public comment was sent out February 27, 2002, and was published in four local newspapers. No comments have been received.

1.4 Issues and Impact Topics

1.4.1 Issues and Derivation of Impact Topics

Issues and concerns affecting this project were identified by NPS specialists and included the input of other agencies, offices and the public. After public scoping, issues and concerns were distilled into distinct impact topics to facilitate the analysis of environmental consequences, which allows for a standardized comparison between alternatives based on the most relevant information. The impact topics were also identified based on federal laws, regulations and executive orders; (USDI National Park Service 2002e) and NPS knowledge of potentially affected resources.

The major resources evaluated for inclusion in this EA are soils, vegetation, prime and unique farmlands, air quality, floodplains, special status species, wildlife, wetlands, cultural resources, visitor use and experience, socioeconomic environment, housing, land use, environmental justice and natural soundscape.

A brief rationale for the selection of each impact topic is presented in 1.4.3, as well as the justification for dismissing specific topics from further consideration in 1.4.4

1.4.2 Impairment of Park Resources or Values

National Park Service policy, (USDI National park Service 2002e) requires analysis of potential effects to determine whether or not actions would impair park resources.

The fundamental purpose of the national park system, established by the Organic Act and reaffirmed by the General Authorities Act, as amended, begins with a mandate to conserve park resources and values. National Park Service managers must always seek ways to avoid, or to minimize to the greatest degree practicable, adverse impacts on park resources and values. However, the laws do give the National Park Service the management discretion to allow impacts to park resources and values when necessary and appropriate to fulfill the purposes of a park, as long as the impact does not constitute impairment of the affected resources. Additionally, a determination involving the environmental consequences of the preferred and other alternatives, resources and values must be considered. Although Congress has given the National Park Service the management discretion to allow certain impacts within parks, that discretion is limited by the statutory requirement that the National Park Service must leave park resources and values unimpaired, unless a particular law directly and specifically provides otherwise. The prohibited impairment is an impact that, in the professional judgment of the responsible National Park Service manager, would harm the integrity of park resources or values, including the opportunities that otherwise would be present for the enjoyment of those resources or values. An impact to any park resource or value may constitute an impairment. An impact would be more likely to constitute an impairment to the extent that it affects a resource or value whose conservation is:

- Necessary to fulfill specific purposes identified in the establishing legislation or proclamation of the park;
- Key to the natural or cultural integrity of the park or to opportunities for enjoyment of the park;

- Identified as a goal in the park's general management plan or other relevant NPS planning documents.

Impairment may result from National Park Service activities in managing the park, visitor activities, or activities undertaken by concessionaires, contractors, and others operating in the park. This environmental assessment will analyze the potential effects of all alternatives presented to determine if the alternative would result in an impairment of park resources. An impairment finding is included in the conclusion section for each impact topic.

1.4.3 Impact Topics Selected for Detailed Analysis

1.4.3.1 Soils

Soils in the Project Area would be disturbed as a result of the action alternatives. Therefore, soils are addressed as an impact topic in this EA.

1.4.3.2 Visitor Use and Experience

Providing for visitor enjoyment is one of the primary purposes of the NPS, according to the 1916 Organic Act. Alternatives presented in this EA have the potential to affect visitor use and experience. Therefore, visitor use and experience is addressed as an impact topic in this EA.

1.4.3.3 Wildlife

Wildlife in the project areas would be disturbed as a result of the action alternatives. Therefore, wildlife is addressed as an impact topic in this EA.

1.4.3.4 Vegetation

Vegetation in the project areas would be disturbed as a result of the action alternatives. Therefore, vegetation is addressed as an impact topic in this EA.

1.4.4 Impact Topics Dismissed From Detailed Analysis

The rationale for dismissing specific topics from further consideration is given below:

1.4.4.1 Prime and Unique Farmlands

In August 1980, the Council on Environmental Quality (CEQ) directed that federal agencies must assess the effects of their actions on farmland soils classified by the U.S. Department of Agriculture's Natural Resources Conservation Service (NRCS) as prime or unique. Prime or unique farmland is defined as soil that particularly produces general crops such as common fruits, vegetables, and nuts. According to NRCS, none of the soils in the Project Area are classified as prime or unique farmland. Therefore, the topic of prime and unique farmlands is dismissed as an impact topic in this EA.

1.4.4.2 Air Quality

National Bridges National Monument is designated as a class II clean air area under the Clean Air Act (42 USC 7401, et seq.). Maximum allowed increases (increments) of sulfur dioxide (SO2), particulate matter (TSP-total suspended particulates), and nitrogen oxides (NOx) beyond baseline concentrations of those pollutants cannot be exceeded at the park. These increments allow modest industrial growth in the vicinity of class II areas. The proposed alternatives would have no measurable effect on the overall air quality of the monument.

1.4.4.3 Environmental Justice

Executive Order 12898, General Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, requires all federal agencies to incorporate environmental justice into their missions by identifying and addressing disproportionately high and adverse human health or environmental effects of their programs and policies on minorities and low-income populations and communities. The alternatives would not have any health or environmental effects on minorities or low-income populations or communities as defined in the Environmental Protection Agency (EPA) *Environmental Justice Guidance*. Therefore, environmental justice is dismissed as an impact topic in this EA.

1.4.4.4 Socioeconomic Environment

Socioeconomic values consist of local and regional businesses and residents, and local and regional economy. The local and regional economies of this area are strongly influenced by tourism. Should the proposed actions be implemented, short-term economic benefits from project-related expenditures and employment would include economic gains for some local businesses and individuals. Possible inconvenience to park visitors from construction activities would be temporary, affect a relatively small number, and occur only during the construction period. While there may be small short-term benefits to local economies, local and regional businesses would not be appreciably affected in the long term. Therefore, socioeconomic values are dismissed as an impact topic in this EA.

1.4.4.5 Floodplains

Executive Order 11988, *Floodplain Management*, and *Director's order No. 77-2, Floodplain Management Guidelines* (USDI National Park Service 1993) requires an examination of impacts to floodplains and the potential risk involved in placing facilities within floodplains. There are no designated floodplains within the Project Area. Therefore, Floodplains is dismissed as an impact topic in this EA.

1.4.4.6 Wetlands

Executive Order 11990, *Protection of wetlands*, requires examination of impacts to wetlands and protection of wetlands. The *Management Policies 2001* (USDI National Park Service 2002e) and the *Reference Manual to Director's Order No. 12* (USDI National Park Service 2002d) provide direction on developments proposed in wetlands. There are no designated wetlands within the Project Area. Therefore, impacts to wetlands is dismissed as an impact topic in this EA.

1.4.4.7 Natural Soundscape

The *Management Policies 2001* (USDI National Park Service 2002e) state that the NPS will strive to preserve the natural quiet and natural sounds associated with the physical and biological resources of parks. Activities causing excessive or unnecessary unnatural sounds in and adjacent to parks will be monitored, and action will be taken to prevent or minimize unnatural sounds that adversely affect park resources or values and visitors' enjoyment of them. The activities proposed in this EA do not have a potential long-term impact on noise. All noise from construction would be temporary and would not cause long-term noise pollution. Therefore, noise is dismissed as an impact topic in this EA.

1.4.4.8 Land Use

Land uses within the Project Area would remain the same following implementation of any of the alternatives. Therefore, land use is dismissed as an impact topic in this EA.

1.4.4.9 **Housing**

Due to the proposed projects, a temporary influx of workers would occur in the area. There is no local housing market adjacent to the park. Work leaders would need to stay in park housing and trail workers would stay in the BLM group campground. Therefore, housing is dismissed as an impact topic from this EA.

1.4.4.10 Special Status Species (Threatened, Endangered, Species of Concern, and Designated Critical Habitats)

The 1973 Endangered Species Act, as amended, requires an examination of impacts to all federally listed threatened or endangered species. NPS policy requires examination of the impacts to state listed threatened or endangered species and federal candidate species. In a letter dated April 1, 2002, the U.S. Fish and Wildlife Service (USFW) provided a list of special status species that may be within the project area or depend on it for critical habitat.

NPS natural resource staff conducted a literature search on park records and current field survey results of the projects areas for listed species that may live in or depend on the project site for habitat. There are no special status species within the project areas (Schelz personal communication 2002). The action alternatives would have no impacts on any listed special status species or designated critical or essential habitats. Therefore, impacts to special status species is dismissed as an impact topic in this EA.

1.4.4.11 Cultural Resources

The 1966 National Historic Preservation Act (NHPA, 16 U.S. Code (USC) 470 et seq.), the 1916 NPS Organic Act, and NPS planning and cultural resource guidelines require consideration and protection of historic properties in development protocols. (The term historic properties refers to all cultural resources including prehistoric archaeological sites, cultural landscapes, ethnographic sites, and historic sites eligible for or listed on the National Register of Historic Places.) The evaluation of potential impacts of proposed actions on significant historic properties is required by NEPA and NHPA, as is attention to the provisions of the Native American Graves Protection and repatriation Act (NAGPRA) for sites where human remains or burials may be present. The area of potential effect for the proposed project was inventoried for cultural resources according to the standards specified in the Secretary of Interior's Standards and Guidelines. No cultural resources eligible for the National Register of Historic Places were located in the area of potential effect, thus the proposed alternatives would have no effect on cultural resources. The Utah State Historic Preservation Office has been notified of this finding.

2. PROPOSED ACTION AND ALTERNATIVES

2.1 Alternative Comparison

2.1.1 Alternative A—No Action Alternative

Under the "no action" alternative, the NPS would not establish a campground trail and would not upgrade the campground amphitheater or rehabilitate the picnic area.

2.1.2 Alternative B—Preferred Alternative

Trail between the campground and the visitor center

This trail would be a new low impact trail construction project. The trail would start at the amphitheater, on the existing route currently used by park staff and would end where the visitor center photovoltaic array access trail ties into the service road, approximately .3 miles away.

Work would entail formalizing a four foot wide trail with hand and power tools, installing crushed rock for trail tread, and constructing several erosion control structures adjacent to two small drainages. The proposed trail layout was selected to minimize the need for erosion control structures. Erosion control structures to be installed would consist of 6"x 6"x 4" treated timbers. Timbers would be fastened to the ground with \(^3\)/4 inch rebar.

Amphitheater upgrade

The NABR amphitheater project would consist of three elements, (1) Trail lights, (2) New projection screen and (3) New benches.

- (1) The first task of this project involves installing a low, ground level lighting system from the trailhead at the campground to the amphitheater. The length of trail is estimated at 600 linear feet. The lights would be solar powered and motion sensitive.
- (2) The second task of this project involves removing the existing projection screen and constructing a new one. The design and installation of the new screen would be similar to the old one. In addition to constructing a new screen, a lockable firewood box would be constructed behind the screen. The firewood box would be 2'x4'x8' and made of wood.
- (3) The third task of this project involves removing the existing benches at the amphitheater and installing new ones. The new benches would be made of a natural wood product and have backrests.

Picnic area rehabilitation

The project would entail constructing three new shade structures at the NABR Loop Road picnic area. The structures would use 12' long x8" diameter poles for up rights, 10' long x 10" diameter poles for cross beams, and 14' long x 4" diameter poles for roof members. Poles would set in 12" concrete filled holes or if unable to reach the desired hole depth they would be anchored to 12" x 12" concrete footings. Poles would be fastened to each other with lag bolts.

This project would also include installing three prefabricated, perforated Plastisol coated steel picnic tables. Each table would be covered by a shade structure. One of the three would be wheelchair accessible. Access steps and ramps to the picnic sites would be rebuilt.

2.1.2.1 Impact Mitigation for Preferred Alternative

Mitigation measures would include carefully defining limits of the work areas and avoiding any impacts outside those areas. This will be especially critical when working on the new trail through a previously undisturbed area, where impacts to soil crusts and vegetation must be minimized. All new ground disturbance will be assessed for erosion potential, and both temporary and permanent erosion control measures implemented as necessary. This may include mulching, fabric, waterbars, and other accepted methods. A reduction in visitor use impacts will be achieved by not working on weekends, and by temporarily closing active work areas to visitor use. Alternate picnic facilities will be available during rehabilitation of the picnic area.

2.2 Environmentally Preferred Alternative

The environmentally preferred alternative is determined by applying the criteria suggested in the National Environmental Policy Act of 1969 (NEPA), which is guided by the Council on Environmental Quality (CEQ). The CEQ provides direction that "[t]he environmentally

preferable alternative is the alternative that will promote the national environmental policy as expressed in NEPA's Section 101b:

- Fulfill the responsibilities of each generation as trustee of the environment for succeeding generations;
- Ensure for all generations safe, healthful, productive, and esthetically and culturally pleasing surroundings;
- Attain the widest range of beneficial uses of the environment without degradation, risk of health or safety, or other undesirable and unintended consequences;
- Preserve important historic, cultural and natural aspects of our national heritage and maintain, wherever possible, an environment that supports diversity and variety of individual choice;
- Achieve a balance between population and resource use that will permit high standards of living and a wide sharing of life's amenities; and
- Enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources.

The preferred alternative (Alternative B) is also the "Environmentally Preferred Alternative" under CEQ guidelines. Alternative B would have either neutral or positive effect on each of the 6 elements listed above, with particular benefits in reducing environmental degradation and improving visitor safety and health. Alternative B also promotes elements 1 through 6 of the CEQ Guidelines by meeting NPS trustee responsibilities to assure future generations of opportunities for beneficial uses of the environment, while preserving resources and balancing use.

2.3 Alternatives Considered But Dismissed

Trail between the campground and visitor center

Locate the trail beside the road.

This alternative was considered and dismissed since the road has no shoulder and existing drainage is immediately adjacent. There is not enough suitable area adjacent to the road to construct a trail. The area would require a considerable amount of fill once installation of adequate drainage pipes occurred. The cost of this alternative is estimated to be three times as much as the proposed trail, with only minor corresponding decrease in environmental impacts.

Table 1: Comparative Summary of Alternatives and Extent to Which Each Alternative Meets the Project Objectives

Alternative A (No Action)	Alternative B (Preferred Alternative)
No trail would be built between the campground and visitor center. Safety problems created by visitors walking along the road would persist. Impacts caused by social trails around the campground would continue. At the amphitheater, facilities would not be rehabilitated or replaced. Uncomfortable and substandard conditions would remain and worsen. No alterations to the picnic area would occur. Deteriorated steps and tables would remain. Erosion problems would continue.	A new trail between the campground and visitor center would be developed. Visitors would be able to safely reach phones and other facilities without walking along the road. The trail would provide a short hike for campers who might otherwise wander the area adjacent to the camp, trampling soil crusts and vegetation. New seating and a new projection screen would be installed in the amphitheater to provide basic adequate facilities. Lighting would be placed along the amphitheater path to allow safe passage for campers after dark. Safe and adequate facilities would be provided at the picnic area, including shade structures, three new tables and wheelchair accessibility.
Meets Project Objectives?	Meets Project Objectives?
No. Continuing the existing conditions (no action) would not correct or improve any of the current safety problems or deteriorated facilities.	Yes. The proposed actions would correct safety problems, reduce resource impacts, and improve public facilities.

3. ENVIRONMENTAL CONSEQUENCES

3.1 Introduction

This chapter discusses the environmental consequences of implementing the alternatives described in Section 2. The analysis discusses the affected environment, discloses the impacts to resources identified as impact topics in Section 1, and provides the scientific and analytical basis for the comparison of the alternatives.

3.1.1 Direct Effects

Effects caused by the action and occurring at the same time and place.

3.1.2 Indirect Effects

Effects caused by the action but occurring later in time or further removed in distance.

3.1.3 Cumulative Effects

Cumulative effects that result from the incremental impact of the action when added to other past, present, and reasonably foreseeable actions. Included in the cumulative affects analyses are the effects of current and future activities not included in the preferred action or alternatives. The current and future activities included in each cumulative effects analysis may vary.

Direct, indirect and cumulative effects impact analyses include discussions on adverse and beneficial effects, and short and long-term effects on resources. Following the discussion of the impacts of each alternative on each impact topic, a brief "conclusions" section summarizes all major findings, including whether or not an impairment of resources or values, as defined in Management Policies 2001 (Section 1.4, USDI National Park Service 2002e) is likely to or would occur.

3.2 IMPACT ANALYSIS TOPICS

Table 1: Impact Comparison Matrix

Impact Topics	Alternative A	Alternative B
	(No Action)	(Proposed Action) Build campground trail;
		Upgrade amphitheater;
		Rehab the picnic area
	No new soil surface	Less than ½ acre disturbed
Soils	disturbed.	including 7,560 square feet of
	anstaro da.	cryptobiotic soil. Impacts are
		site-specific, short-term to
		long-term duration, minor
		intensity, except for
		cryptobiotic soil.
	No change in existing use or	Projects will close the
Visitor use and	conditions. Unsafe conditions	amphitheater and picnic area
Experience	and adverse environmental	for 5 to 9 weeks. Impacts are
	impacts would persist.	local, intermediate duration,
	Impacts would be site	minor to moderate intensity.
	specific, long-term, and of	
	minor to moderate intensity. No new impacts.	Less than ½ acre of potential
Wildlife	No new impacts.	wildlife habitat impacted.
Wilding		Visitor use levels may
		increase with improved
		facilities. Impacts are site-
		specific, short-term to
		intermediate duration, minor
		intensity.
	No new impacts.	Damage/loss of vegetation
Vegetation		and soil crust in disturbed
		areas. Impacts are local,
		short-term to intermediate
		duration, minor to moderate
		intensity.

3.2.1 SOILS

3.2.1.1 Affected Environment

Elevations in the park range between 6,000 feet and 6,600 feet. The land surface is a deeply incised plateau with two major canyons-White and Armstrong-which join in the western part of the park. The geologic features of the park are the result of stream erosion of the massive Cedar Mesa sandstone member of the Cutler formation that dates to the Permian Era.

The projects sites consist of soils in the Barx-Rizno-Yarts classification. The Barx series consists of very deep, well-drained, moderately permeable soils on mesas and structural benches. These soils formed in alluvium and eolian material derived dominantly from sandstone. Slopes range from 1 to 10 percent. These soils are fine-loamy, mixed, mesic Ustollic Haplargids.

The Rizno series consists of very shallow and shallow, well drained, moderately rapidly permeable soils on structural benches, mesas and cuestas. These soils formed in eolian material and residuum derived dominantly from sandstone. Slopes range from 3 to 30 percent. These soils are loamy, mixed (calcareous), mesic Lithic Ustic Torriorthents.

The Yarts series consists of very deep, well-drained, moderately rapidly permeable soils on structural benches, hillsides, and mesas. These soils formed in eolian material and alluvium derived from sandstone. Slopes from 5 to 30 percent. These soils are coarse-loamy, mixed (calcareous), mesic Ustic Torriorthents.

The trail from the campground to the visitor center project contains 7,560 square feet of undisturbed cryptobiotic soils. These well-developed, dark brown soil crusts may represent 70 to 80 percent of the living ground cover in the cold deserts of the Colorado Plateau region. The soil crust consists of a variety of organisms, including cyanobacteria, lichens, algae, mosses and fungi. Filamentous cyanobacteria, such as *Microcoleus vaginatus*, dominate the cryptobiotic soils. The sticky sheaths from these cyanobacteria form an intricate webbing of fibers throughout the soil. This webbing stabilizes the soil and protects the soil surface from wind and water erosion. (USDI Bureau of Land Management. 2001).

3.2.1.2 Evaluation Criteria

Direct, Indirect, and Cumulative Impacts (Methodology for Determining Impacts)

A variety of information sources have been used to determine impacts and significance for the affected soils. These consist primarily of published literature such as soil surveys (USDA Soil Conservation Service. 1997), soil experts from the SEUG office as well as research and personal observations. Actions affecting soils are also governed by various laws and policies listed in Section 8.

The following definitions apply to impact descriptions for the soils category:

<u>Context:</u> Geographic extent or scope of the impact

Duration:

Short-term – Effect of each impact lasting a few days to a few weeks

Intermediate – Lasting from a few months up to 5 years. Long-term – Lasting from a few years to decades.

Intensity:

Negligible – The impact is zero or at the lowest levels of detection

Minor – The impact is slight, but detectable.

Moderate – The impact is readily apparent.

Major – The impact is severely adverse or exceptionally beneficial.

3.2.1.3 Environmental Consequences, Alternative A

Direct and Indirect Impacts

Existing conditions would continue. No new soil surfaces would be disturbed.

Cumulative Impacts

The impacts of this alternative, in combination with other past, present and reasonably foreseeable future actions, would have negligible cumulative effects.

Conclusion

Impacts of this "no action" alternative on soils are expected to be site-specific, short-term, and of negligible intensity. Because there would be no major adverse impacts to a resource or value whose conservation is (1) necessary to fulfill specific purposes identified in the establishing legislation or proclamation of Natural Bridges National Monument; (2) key to the natural or cultural integrity of the monument; or (3) identified as a goal in the monument's general management plan or other relevant NPS planning documents, there would be no impairment of the monument's resources or values.

3.2.1.4 Environmental Consequences, Alternative B

Direct and Indirect Impacts

Approximately 7,560 square feet of previously undisturbed cryptobiotic soil between the campground and visitor center would be disturbed by this project. The two other proposed projects are not going to involve new ground disturbance. Standard methods to reduce erosion will be employed during and after construction, including but not limited to re-vegetation, mulching, ditching, and other control techniques.

Cumulative Impacts

Public land use around the monument includes cattle grazing and growing levels of recreational use. These activities can adversely impact soil crusts, with a subsequent loss in ecological integrity and an increase in soil erosion. The monument represents one of the few areas in the vicinity where cattle grazing and off-road motorized recreational use is not present. The impacts of this alternative, in combination with the past, present and reasonably foreseeable future activities outlined above, would have minor cumulative effects.

Conclusion

Impacts of this alternative on soils are expected to be site-specific, short-term to long-term, and of minor to moderate intensity. The severity, duration and timing of impacts associated with this alternative, and their direct, indirect and cumulative effects do not constitute impairment of park resources and values.

3.2.2 VISITOR USE AND EXPERIENCE

3.2.2.1 Affected Environment

These projects will affect different parts of the Monument. The project is planned for the spring and summer months when camping activity and visitation is at its height.

Trail between campground and visitor center

This project will affect the area between the campground and visitor center. Very few visitors use this area now. The project will last for approximately 9 weeks.

<u>Upgrade of amphitheater</u>

This project will affect the amphitheater and its trail. This area is used in the evening 7 days a week for interpretive night programs involving an average of 10 to 20 visitors. The project will last for approximately 5-9 weeks.

Rehabilitation of the picnic area

This project will affect the picnic area. The area has three picnic tables. The area has a moderate use of visitors. The project will last for approximately 9 weeks.

3.2.2.2 Evaluation Criteria

Direct, Indirect, and Cumulative Impacts (Methodology for Determining Impacts)

A variety of information sources have been used to determine impacts and significance for Visitor Use and Experience. These consist primarily of planning and management documents, as well as monitoring data and personal observations. Actions affecting visitor use and experience are also governed by various laws and policies listed in Section 8.

The following definitions apply to impact descriptions for the Visitor use and Experience category:

Context: Geographic extent or scope of the impact

Duration:

Short-term – Effect of each impact lasting a day or less Intermediate – Lasting from a few days to a few months

Long-term – Lasting a year or more.

Intensity:

Negligible – The impact is zero or at the lowest levels of detection

Minor – The impact is slight, but detectable.

Moderate – The impact is readily apparent.

Major – The impact is severely adverse or exceptionally beneficial.

3.2.2.3 Environmental Consequences, Alternative A

Direct and Indirect Impacts

Existing conditions would continue under the "no action" alternative and no new impacts would occur, although negative impacts would be expected to continue.

Trail between the campground and visitor center

The safety hazard of campers walking along the park road to the visitor center would remain.

Upgrade the amphitheater

Deteriorated facilities would remain. Visitors would still sit on split-log benches with no back support and walk back to their campsite in the dark along an unpaved 200 yard trail.

Rehabilitate picnic area

Visitors would use an inadequate picnic area. There is no shade, and the steps to the worn picnic tables are deteriorating, creating a potentially hazardous condition.

Cumulative Impacts

If unresolved, the conditions created by deteriorated facilities and unsafe activities would persist. These conditions are likely to be aggravated by future increases in visitation and further deterioration over time. Both the picnic area and the campground amphitheater would eventually have to be closed to visitor use. Therefore, the cumulative impacts of this alternative, in combination with other past, present and reasonably foreseeable future actions, would be negative, long term and of moderate intensity.

Conclusion

Impacts of this "no action" alternative on Visitor Use and Experience are expected to be site specific, long-term, and of minor to moderate intensity. Because there would be no major adverse impacts to a resource or value whose conservation is (1) necessary to fulfill specific purposes identified in the establishing legislation or proclamation of Natural Bridges National Monument; (2) key to the natural or cultural integrity of the monument; or (3) identified as a goal in the monument's general management plan or other relevant NPS planning documents, there would be no impairment of the monument's resources or values.

3.2.2.4 Environmental Consequences, Alternative B

Direct and Indirect Impacts

Trail between campground and visitor center

The area will be closed to visitor use for the duration of the project, estimated to be 9 weeks. The trail is being built in an area that is usually closed to visitors. The supplies to be used for the trail and amphitheater projects will be staged at one of the campground sites, closing the specific site to the public. The campground has a total of 13 sites. The work will be accomplished during 3.5 ten-hour days a week. Some construction noise may be heard in the campground during the day.

Upgrade of amphitheater

The project area will be closed to the visitor use for the duration of the project, estimated to be 5-9 weeks. This will impact visitors since the amphitheater will be unavailable for formal evening interpretive programs. In the past, average attendance at evening programs was 10 to 20 visitors, seven days a week. NPS staff will determine alternatives as to where to conduct evening programs during this time period. One of the campground sites will be used to stage supplies for this and the new trail project. The work will be accomplished during 3.5 ten-hour days a week. Some construction noise may be heard in the campground during the day.

Rehabilitation of the picnic area

The project area will be closed to visitor use for the duration of the project, estimated to be 9 weeks. The area has three tables and is generally used by non-camping visitors. Picnic tables will be made available near the visitor center during the closure.

Cumulative Impacts

The impacts of this alternative, in combination with other past, present and reasonably foreseeable future actions, would have negligible cumulative effects.

Conclusion

Short term impacts of this alternative on visitor use and experience are expected to be negative, local, and of minor to moderate intensity. Long term impacts will be positive, local, and of minor to moderate intensity. Because there would be no major adverse impacts to a resource or value whose conservation is (1) necessary to fulfill specific purposes identified in the establishing legislation or proclamation of Natural Bridges National Monument; (2) key to the natural or cultural integrity of the monument; or (3) identified as a goal in the monument's general management plan or other relevant NPS planning documents, there would be no impairment of the monument's resources or values.

3.2.3 WILDLIFE

3.2.3.1 Affected Environment

Wildlife living on or visiting the site are primarily small mammals, birds and lizards. Likely mammal residents are Ord's kangaroo rat (Dipodomys ordii) and various mice species; occasional visitors may include mule deer (Odocoileus hemionus), desert cottontail (Sylvilagus audubonii), least chipmunk (Tamias minimus) and gray fox (Urocyon cinereoargenteus). Birds expected to visit the sites include ravens (Corvus Corax), scrub jay (Aphelocoma coerulescens) and pinyon jay (Gymnorhinus cyanocephalus). Likely reptile residents include the sagebrush lizard (Sceloporus graciosus), plateau lizard (Sceloporus undulates) plateau whiptail lizard (Cnemidophorus velox) and the midget faded rattlesnake (Crotalus viridis concolor). (Armstrong, 1982), (USDI National Park Service. 2002a, 2002b, 2002c).

3.2.3.2 Evaluation Criteria

Direct, Indirect, and Cumulative Impacts (Methodology for Determining Impacts)

A variety of information sources have been used to determine impacts and significance for the affected wildlife resources. These consist primarily of published literature such as species research and life history studies, experts opinion, as well as monitoring data and personal

observations. Actions affecting wildlife are also governed by various laws and policies listed in Section 8.

The following definitions apply to impact descriptions for the Wildlife category:

Context: Geographic extent or scope of the impact

Duration:

Short-term – effect of each impact lasting a few hours or less Intermediate – lasting from a few hours to a few days Long-term – lasting from a few days to permanently

Intensity:

Negligible – the impact is zero or at the lowest levels of detection Minor – the impact is slight, but detectable Moderate – the impact is readily apparent Major – the impact is severely adverse or exceptionally beneficial

3.2.3.3 Environmental Consequences, Alternative A

Existing conditions would continue under the "no action" alternative and no new impacts on wildlife would occur.

Direct and Indirect Impacts

Existing conditions would continue under the "no action" alternative and no new impacts on wildlife would occur.

Cumulative Impacts

The impacts of this alternative, in combination with other past, present and reasonably foreseeable future actions, would have negligible cumulative effects.

Conclusion

Impacts of this alternative on wildlife are expected to be site-specific, of short-term duration, and of negligible intensity. Because there would be no major adverse impacts to a resource or value whose conservation is (1) necessary to fulfill specific purposes identified in the establishing legislation or proclamation of Natural Bridges National Monument; (2) key to the natural or cultural integrity of the monument; or (3) identified as a goal in the monument's general management plan or other relevant NPS planning documents, there would be no impairment of the monument's resources or values.

3.2.3.4 Environmental Consequences, Alternative B

Direct and Indirect Impacts

The three projects would directly impact not more than 0.2 acres of potential wildlife habitat. 7,560 square feet of the trail between the campground and visitors center would be in a previously undisturbed area. Wildlife inhabiting this area would be disrupted to varying degrees by the trail construction and the subsequent human presence in the area. Most individuals and species would adapt to the new situation quickly, or move to an area of less disturbance.

Cumulative Impacts

While the proposed trail would be located in a previously undisturbed area, the work at all three sites falls within the development or motorized sight-seeing zones of the park. No additional new development is proposed anywhere in the park. Most of the park would remain trail-less and undisturbed, and contains prime wildlife habitat. Therefore, the impacts of this alternative, in combination with other past, present and reasonably foreseeable future actions, would have negligible cumulative effects.

Conclusion

Impacts of this alternative on wildlife are expected to be negative, site-specific, of short-term to intermediate duration, and of minor intensity. Because there would be no major adverse impacts to a resource or value whose conservation is (1) necessary to fulfill specific purposes identified in the establishing legislation or proclamation of Natural Bridges National Monument; (2) key to the natural or cultural integrity of the monument; or (3) identified as a goal in the monument's general management plan or other relevant NPS planning documents, there would be no impairment of the monument's resources or values.

3.2.4 VEGETATION

3.2.4.1 Affected Environment

Big sage brush (<u>Artemesia tridentata</u>), rabbitbrush (<u>Chrysothamnus nauseosus</u>), broom snakeweed (<u>Gutierrezia sarothrae</u>) dominate the site areas with cryptobiotic soil crust and nonnative cheatgrass (<u>Bromus tectorum</u>). Other plants include, roundleaf buffaloberry (<u>Sheperdia rotundifolia</u>), common prickly pear cactus (<u>Opuntia erinacea</u>), narrowleaf yucca (<u>Y. angustissima</u>), blackbrush (<u>Coleogyne ramosissima</u>). juniper (<u>Juniperus osteosperma</u>) and pinion pine (Pinus edulis) are in abundance. (William, David. 1965), (Elmore, Francis H. 1976).

3.2.4.2 Evaluation Criteria

Direct, Indirect, and Cumulative Impacts (Methodology for Determining Impacts)

A variety of information sources have been used to determine impacts and significance for the affected vegetation resources. These consist primarily of published literature such as inventories and species research, experts opinion, as well as monitoring data and personal observations. Actions affecting vegetation are also governed by various laws and policies listed in Section 8.

The following definitions apply to impact descriptions for the vegetation category:

Context: Geographic extent or scope of the impact.

Duration:

Short-term – Effect of each impact lasting a few days to weeks.

Intermediate – Lasting from a few weeks to months. Long-term – Lasting from a few months to years.

Intensity:

Negligible – The impact is zero or at the lowest levels of detection

Minor – The impact is slight, but detectable.

Moderate – The impact is readily apparent.

Major – The impact is severely adverse or exceptionally beneficial.

3.2.4.3 Environmental Consequences, Alternative A

Direct and Indirect Impacts

Existing conditions would continue under the "no action" alternative on vegetation and no new ground disturbance would occur.

Cumulative Impacts

The impacts of this alternative, in combination with other past, present and reasonably foreseeable future actions, would have negligible cumulative effects.

Conclusion

Impacts of this alternative on vegetation are expected to be site-specific, short-term duration, and of negligible intensity. Because there would be no major adverse impacts to a resource or value whose conservation is (1) necessary to fulfill specific purposes identified in the establishing legislation or proclamation of Natural Bridges National Monument; (2) key to the natural or cultural integrity of the monument; or (3) identified as a goal in the monument's general management plan or other relevant NPS planning documents, there would be no impairment of the monument's resources or values.

3.2.4.4 Environmental Consequences, Alternative B

Direct and Indirect Impacts

Trail between campground and visitor center

Approximately 7,560 square feet of undisturbed cryptobiotic soil would be impacted. About 35 individual specimens of native plants including big sage brush, roundleaf buffaloberry, Broom snakeweed, blackbrush, prickley pear cactus and cliff rose will be removed. 10 juniper and pinion pine trees will be trimmed. Prior to construction, attempts would be made to salvage suitable plant material for later replanting in other disturbed areas. While survival is typically low in such circumstances, some plants are likely to survive transplanting and become reestablished.

Amphitheater

There will be no vegetation impacted. All soil areas have been disturbed before.

Picnic area

All soil areas have been disturbed before. About 40 individual specimens of native plants including rabbitbrush, broom snakeweed and narrowleaf yucca will be removed. 1 Juniper tree will be trimmed. Prior to disturbance, attempts would be made to salvage suitable plant material for later replanting in the area around the disturbed area. While survival is typically low in such circumstances, some plants are likely to survive transplanting and become reestablished.

Cumulative Impacts

No other projects with measurable impacts to park vegetation have occurred recently, or are proposed. The impacts of this alternative, in combination with other past, present and reasonably foreseeable future actions, would have negligible cumulative effects.

Conclusion

Impacts of this alternative on vegetation are expected to be local, short-term to intermediate duration, and of minor to moderate intensity. Because there would be no major adverse impacts to a resource or value whose conservation is (1) necessary to fulfill specific purposes identified in the establishing legislation or proclamation of Natural Bridges National Monument; (2) key to the natural or cultural integrity of the monument; or (3) identified as a goal in the monument's general management plan or other relevant NPS planning documents, there would be no impairment of the monument's resources or values.

4. REFERENCES

Armstrong, David M. 1982. *Mammals of the Canyon country: A handbook of Mammals of Canyonlands National park and Vicinity*. Canyonlands Natural History Association. Moab, Utah, 263 pp.

Elmore, Francis H. 1976. *Shrubs and Trees of the Southwest Uplands*. Southwest Parks and Monuments Association. Tucson, Arizona.

Schelz, C. 2002. Personal Communication. Biologist, Southeast Utah Group, National Park Service. February 2002.

USDA Soil Conservation Service. 1997. Soil Survey of San Juan County, Utah, Central Part.

USDI. Bureau of Land Management 2001. *Biological Soil Crusts: Ecology and Management*. Denver Colorado.

USDI National Park Service. 1993. *Director's Order No. 77-2 Floodplain Management Guidelines*. National Park Service DO77-2.

USDI National Park Service. 1997. General Management Plan/Development Concept Plan, Natural Bridges National Monument. Denver Service Center, Denver, Colorado.

USDI National Park Service. 2002a. *Species Lists: Mammals*. Southeast Utah Parks & Monuments. Online: http://www/nps.gov/seug/resource/species/mammals.pdf. Accessed February 19, 2002.

USDI National Park Service. 2002b. *Species Lists: Birds*. Southeast Utah Parks & Monuments. Online: http://www/nps.gov/seug/resource/species/birds.pdf. Accessed February 19, 2002.

USDI National Park Service. 2002c. *Species Lists:* Reptile. Southeast Utah Parks & Monuments. Online: http://www/nps.gov/seug/resource/species/reptile.pdf. Accessed February 19, 2002.

USDI National Park Service. 2002d. *Reference Manual to Director's Order No. 12. Conservation Planning and Environmental Impact Analysis, and Decision-Making.* Director's Order No.12. January 8, 2001.

USDI National Park Service. 2002e. *Management Policies 2001*, National Park Service.

Williams, David. 1965. A Naturalist's Guide to Canyon Country. Canyonlands Natural History Association. Moab, Utah.

5. PREPARERS

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6. CONSULTATION AND COORDINATION

The following agencies were contacted and consulted during the preparation of this EA:

U.S. Fish and Wildlife Service, Utah Field Office, Salt Lake City, Utah

The NPS obtained from the USFWS the current list of potential endangered, threatened, or candidate species that may occur in the area of influence of the proposed actions. A review of this list was completed by the NPS and it was determined that no federally listed threatened or endangered species or critical habitat are present in or near the project area. This EA serves as written documentation of this determination and will be submitted to the USFWS for concurrence. If the USFWS concurs, the consultation process is complete and no further action is necessary.

State of Utah Historic Preservation Office

No cultural resources eligible for the National Register of Historic Places were located in the area of potential effect, thus the proposed development would have no effect on cultural resources. The Utah State Historic Preservation Office has been notified of this finding.

Public Scoping

On February 13, 2002, a summary of the projects was presented to the Monticello City Council. On March 13, 2002, a summary was presented to the Blanding City Council. A press release outlining the proposed projects and requesting public comment was sent out February 27, 2002, and was published in four local newspapers. No comments on the proposed projects were received.

7. DISTRIBUTION OF ENVIRONMENTAL ASSESSMENT DOCUMENT

This EA is being made available to the public and other agencies in a number of ways:

• The public and others may request a copy by contacting the superintendent's office, or by entering the park website at www.nps.gov/nabr. The U.S. Fish and Wildlife Service and the Utah State Historic Preservation Office have been sent a copy.

Copies of the EA have also been mailed to the following agencies and organizations:

Glenn Cassamassa District Ranger Manti-LaSal National Forest PO BOX 386 Moab, UT 84532

National Parks Conservation Association PO Box 737 Fort Collins, CO 80522-0737

San Juan County Commission 117 S. Main St. Monticello UT 84535

Tim Smith Regional Supervisor Utah Division of Parks and Recreation 1165 S. Highway 191 Moab UT 84532

Carolyn Wright Governors Office of Planning and Budget 116 State Capitol Bldg Salt Lake City UT 84114

Southern Utah Wilderness Alliance 1470 South 1100 East Salt Lake City UT 84105

Kent Walter Manager, Monticello Field Office Bureau of Land Management PO Box 7 Monticello UT 84535

Southeast Utah Land Users PO Box 353 Blanding UT 84511 John Weisheit Sierra Club PO Box 37 Moab UT 84532

Southeastern Utah Association of Local Governments Drawer A-1 Price UT 84501

The following tribes have expressed interest in reviewing actions affecting Natural Bridges National Monument, and will receive copies of the EA.

Paiute:

Paiute Tribe of Utah 600 North 100 East Cedar City, Utah 84720

Ute:

Betsy Chapoose Ute Indian Tribe POB 190 Ft. Duchesne, UT 84026

Hopi:

Leigh J. Kuwanwisiwma, Director Cultural Preservation Office P.O. Box 123 Kykotsmovi, AZ 86039

Navajo:

Marklyn Chee Historic Preservation POB 4950 Windowrock, AZ 86515

Eastern Pueblo Agencies:

Chairman's Office All Indian Pueblo Council P.O. Box 400 Albuquerque, NM 87103

Executive Director's Office Eight Northern Indian Pueblo, Inc. POB 969 San Juan, NM 87566

8. COMPLIANCE WITH FEDERAL AND STATE LAWS AND REGULATIONS

The following laws and associated regulations provided direction for the design of project alternatives and the analysis of impacts.

Presidential Proclamation Number 804, 35 Statute 2183. An Act to provide for the establishment of Natural Bridges N.M. in the State of Utah.

The enabling Act establishing Natural Bridges N.M.

National Park Service Organic Act (16 USC 1 et seq. [1988], Aug. 25, 1916)

The 1916 National Park Service Organic Act is the core of park service authority and the definitive statement of the purposes of the parks and of the National Park Service mission.

National Environmental Policy Act of 1969 (42 USC 4321-4370).

The purposes of NEPA include encouraging "harmony between [humans] and their environment and promote efforts which will prevent or eliminate damage to the environment...and stimulate the health and welfare of [humanity]." The purposes of NEPA are accomplished by evaluating the effects of federal actions. The results of these evaluations are presented to the public, federal agencies, and public officials in document format (e.g., environmental assessments and environmental impact statements) for consideration prior to taking official action or making official decisions. Implementing regulations for NEPA are contained in 40 CFR 1500-1515. This document is prepared to comply with NEPA.

Clean Water Act (33 USC 1251-1376).

The clean Water Act, passed in 1972 as amendments of the Federal Water Pollution Control Act, and significantly amended in 1977 and 1987, was designed to restore and maintain the integrity of the nation's water.

Clean Air Act (PL Chapter 360,69 Stat 322, 42 USC 7401 et seq.).

The main purpose of this act is to protect and enhance the nation's air quality to promote the public health and welfare. The act establishes specific programs that provided special protection for air resources and air quality related values associated with NPS units. The EPA has been charged with implementing this act. No measurable impacts of the alternatives on air quality are expected, and no additional compliance activities are anticipated relative to the Clean Air Act.

Endangered Species Act of 1973, as amended (ESA) (16 USC 1531-1544).

The purposes of the ESA include providing "a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved." According to the ESA, "all federal departments and agencies shall seek to conserve endangered species and threatened species" and "[e] ach federal agency shall...insure that any action authorized, funded or carried out by such agency...is not likely to jeopardize the continued existence of any endangered species or threatened species." The USFWS (non-marine species) and the National Marine Fisheries Service (NMFS) (marine species, including anadromous fish and marine mammals) administer the ESA. The effects of any agency action that may affect endangered, threatened, or proposed species must be evaluated in consultation with either the USFWS or NMFS, as appropriate. Implementing regulations which describe procedures for interagency cooperation to determine the effects of actions on endangered, threatened, or proposed species are contained in 50 CFR 402. The NPS has consulted with the USFWS in compliance with Section 7 of the ESA. No threatened and endangered or sensitive species occur in the project area.

National Historic Preservation act of 1966, as amended (USC 470 et seq.).

Congressional policy set forth in NHPA includes preserving "the historical and cultural foundations of the Nation" and preserving irreplaceable examples important to our national heritage to maintain "cultural, educational, aesthetic, inspirational, economic, and energy benefits," NHPA also established the National Register of Historic Places composed of districts, sites, buildings, structures, and objects significant in American history, architecture, archeology, engineering, and culture." NHPA requires the federal agencies take into account the effects of their actions on properties eligible for or included in the National Resister of

Historic Places and to coordinate such actions with the State Historic Preservation Offices (SHPO). NHPA also requires federal agencies, in consultation with the SHPO, to locate, inventory, and nominate all properties that appear to qualify for the National Register of Historic Places, including National Historic Landmarks. Further, it requires federal agencies to document those properties (in the case of an adverse effect) and propose alternatives to those action in accordance with NEPA.

Executive Order 12898, Environmental Justice in Minority and Low-Income Populations.

The executive order directs federal agencies to assess whether their actions have disproportionately high and adverse human health or environmental effects on minority and low-income populations. This topic was dismissed in this EA; therefore no additional compliance activities are anticipated under this Executive Order.

State of Utah, Division of Wildlife Resources Policy Number W2AQ-4: State Sensitive Species.

The purpose the Utah Sensitive Species list is to identify those species in the state that are the most vulnerable to population or habitat loss. This list provides land managers, wildlife managers, and concerned citizens with brief overview of the conservation status of listed species. The list is intended to stimulate management actions, e.g., timely and sufficient conservation measures for Sensitive Species, federal listing of these species under the Endangered Species Act may be precluded.